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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,608	01/03/2006	James Robert Durrant	FRYHP0127US	9651

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EXAMINER	
PATTERSON, MARC A	

ART UNIT	PAPER NUMBER
1794	

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03/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/520,608	DURRANT ET AL.	
	Examiner	Art Unit	
	MARC A. PATTERSON	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/3/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The amendment to the claims does not include marked - up changes of all claims, and includes fewer claims without cancelling any claims.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 35 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 35 provides for the use of an oxygen scavenging element, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 35 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections – 35 USC § 102(b)

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 – 7, 9 – 16, 18 – 29 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Ebner et al. (U.S. Patent No. 6,387,461 B1).

With regard to Claims 1 – 4, 11, 14 – 15 and 29, Ebner et al disclose a package packaging an item and defining a closed environment in which the item is enclosed (column 3, lines 50 - 52), the packaging including an oxygen – scavenging element which includes titanium oxide (column 4, lines 49 – 51, therefore a photo – activatable semiconductor and polyvinyl chloride (column 8, lines 56 – 57), therefore an electron donor that is an organic material; Ebner et al therefore also include a semiconconductor that whilst exposed to ultra – bandgap light generates electron – hole pairs, with the electrons acting to reduce oxygen, thereby to scavenge the same from the closed environment, and the holes combining with electrons sacrificed by the electron donor.

With regard to Claims 5 – 6, the organic material comprises EDTA (column 5, line 68).

With regard to Claim 7, the organic material comprises an alcohol (column 8, line 56).

With regard to Claim 9, the organic material comprises an aldehyde (column 10, line 52).

With regard to Claims 10, 12 – 13 and 19, the oxygen scavenging element comprises a suspension containing the semiconductor (column 7, lines 60 - 64), therefore also including a gas and vapor.

With regard to Claims 16 and 18, the semiconductor comprises zinc oxide (column 4, lines 40 - 43).

With regard to Claim 20, the oxygen scavenging element comprises a paste containing the semiconductor (column 11, lines 50 – 51).

With regard to Claims 21 – 22, the oxygen scavenging element comprises a gel containing the semiconductor (dispersion, therefore including a liquid; column 8, line 2).

With regard to Claims 23 - 25, the oxygen scavenging element comprises titanium oxide, as discussed above; the oxygen scavenging element therefore comprises a block, layer or powder containing an activatable semiconductor.

With regard to Claims 26 - 27, the oxygen scavenging element is a packaging element, as stated above, and therefore comprises an encapsulating layer and film encapsulating at least a surface of the item.

With regard to Claim 28, the packaging includes an open – topped container and the oxygen – scavenging element comprises a film which closes the container (pouch; column 3, lines 48 - 50).

With regard to Claim 34, the item comprises a foodstuff (column 7, lines 39 - 40).

Claim Rejections – 35 USC § 103(a)

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 17 and 30 – 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ebner et al (U.S. Patent No. 6,387,461 B1).

Ebner et al disclose an oxygen scavenging element for a package, as discussed above. The element comprises transition metal oxide (column 5, lines 47 - 55). With regard to Claim 17, Ebner et al fail to disclose a metal oxide comprising tungsten oxide. However, Ebner et al disclose the use of a transition metal oxide, as discussed above. It therefore would have been obvious for one of ordinary skill in the art, at the time Applicant's invention was made, to have provided for tungsten oxide, as tungsten oxide is a transition metal oxide.

With regard to Claims 30 – 33, Ebner et al fail to disclose a package comprising an item that is an opto - electronic device, molecular device or a polymeric device. However, Ebner et al disclose a package, as discussed above. It therefore would have been obvious for one of ordinary skill in the art, at the time Applicant's invention was made, to have provided for a package comprising any item, including an opto - electronic device, molecular device or a polymeric device.

8. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ebner et al. (U.S. Patent No. 6,387,461 B1) in view of Fisher (U.S. Patent No. 2,877,197).

Ebner et al disclose an oxygen scavenging element for a container comprising a polymer as discussed above. Ebner et al fail to disclose an element comprising a thiol.

Fisher teaches a polymer comprising a polythiol for the purpose of obtaining a polymer that is corrosion resistant (column 1, lines 23 – 25). One of ordinary skill in the art would

therefore have recognized the advantage of providing for the polythiol of Fisher in Ebner et al, which comprises a polymer, depending on the resistance of the end product.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a thiol in Ebner et al in order to obtain a polymer that is corrosion resistant as taught by Fisher.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A Patterson whose telephone number is 571-272-1497. The examiner can normally be reached on Mon - Fri 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Marc A Patterson/
Primary Examiner, Art Unit 1794